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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/913,595	10/22/2001	Manabu Sasamoto	501.40474X00	3782
20457	7590 05/30/2006		EXAMINER	
ANTONELLI, TERRY, STOUT & KRAUS, LLP			HENNING, MATTHEW T	
1300 NORTH SEVENTEENTH STREET SUITE 1800 ARLINGTON, VA 22209-3873			ART UNIT	PAPER NUMBER
			2131	
			DATE MAILED: 05/30/2000	6

Please find below and/or attached an Office communication concerning this application or proceeding.

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	Application No.	Applicant(s)
	09/913,595	SASAMOTO ET AL.
Office Action Summary	Examiner	Art Unit
	Matthew T. Henning	2131
The MAILING DATE of this communication app Period for Reply	ears on the cover sheet with the c	orrespondence address
A SHORTENED STATUTORY PERIOD FOR REPLY WHICHEVER IS LONGER, FROM THE MAILING DA - Extensions of time may be available under the provisions of 37 CFR 1.13 after SIX (6) MONTHS from the mailing date of this communication. - If NO period for reply is specified above, the maximum statutory period w - Failure to reply within the set or extended period for reply will, by statute, Any reply received by the Office tater than three months after the mailing earned patent term adjustment. See 37 CFR 1.704(b).	ATE OF THIS COMMUNICATION 36(a). In no event, however, may a reply be tim iill apply and will expire SIX (6) MONTHS from cause the application to become ABANDONE	N. nely filed the mailing date of this communication. D (35 U.S.C. § 133).
Status		
 1) ⊠ Responsive to communication(s) filed on 17 Ma 2a) ⊠ This action is FINAL. 2b) ☐ This 3) ☐ Since this application is in condition for allowant closed in accordance with the practice under E 	action is non-final. nce except for formal matters, pro	
Disposition of Claims		
4) ☐ Claim(s) 1-18 is/are pending in the application. 4a) Of the above claim(s) is/are withdraw 5) ☐ Claim(s) is/are allowed. 6) ☐ Claim(s) 1-18 is/are rejected. 7) ☐ Claim(s) is/are objected to. 8) ☐ Claim(s) are subject to restriction and/or Application Papers 9) ☐ The specification is objected to by the Examiner 10) ☐ The drawing(s) filed on 26 December 2001 is/ar Applicant may not request that any objection to the or Replacement drawing sheet(s) including the correction 11) ☐ The oath or declaration is objected to by the Examiner	r election requirement. r. re: a)⊠ accepted or b)□ object drawing(s) be held in abeyance. See on is required if the drawing(s) is obj	e 37 CFR 1.85(a). ected to. See 37 CFR 1.121(d).
Priority under 35 U.S.C. § 119		
12) Acknowledgment is made of a claim for foreign a) All b) Some * c) None of: 1. Certified copies of the priority documents 2. Certified copies of the priority documents 3. Copies of the certified copies of the prior application from the International Bureau * See the attached detailed Office action for a list of	s have been received. s have been received in Applicati ity documents have been receive (PCT Rule 17.2(a)).	on No ed in this National Stage
Attachment(s) 1) Notice of References Cited (PTO-892) 2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 8/16/01 3/17/06	4) Interview Summary Paper No(s)/Mail Da 5) Notice of Informal P 6) Other:	

Art Unit: 2131

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1 This action is in response to the communication filed on 3/17/2006.

Page 2

2 DETAILED ACTION

3 Response to Arguments

Applicants' arguments filed 3/17/2006 have been fully considered but they are not persuasive. Applicants' argue primarily that:

- a. Chou's keys are not apparatus specific.
- 7 b. Chou's keys are noise sample and DVD specific.
- 8 c. Chou's DK_A does not have roots in an apparatus.

Regarding applicants' argument a., that Chou's keys are not "apparatus specific", the examiner does not find the argument persuasive. The examiner draws the applicants' attention to the American Heritage College Dictionary page 1330 which defines "specific" as "4a Intended for, applying to, or acting on a particular thing". By this definition, "apparatus specific" means that the key is intended for, applying to, or acting on a particular apparatus. Chou, in Col. 6 Lines 25-33, discloses that DK_A is used by the transponder to derive a key to decrypt stored data. As such, DK_A is intended for the transponder, and therefore meets the limitation of apparatus specific. Therefore, the examiner does not find the argument persuasive.

Regarding applicants' argument b., that Chou's keys are noise sample and DVD specific, the examiner does not find the argument persuasive. It is noted that the features upon which applicant relies (i.e., the keys not being noise sample or DVD specific) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). Furthermore, there is no reason why a key cannot be both DVD

Art Unit: 2131

and transponder specific, especially since the transponder is located in the DVD. As such, the

Page 3

2 examiner does not find the argument persuasive.

Regarding applicants' argument c., that Chou's DK_A does not have roots in an apparatus, the examiner does not find the argument persuasive. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., the first key having roots in an apparatus) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). As such, the examiner does not find the argument persuasive.

Because the applicants' arguments have not been found persuasive, the examiner has maintained the prior art rejections of the unamended claims.

Claims 1-18 have been examined and 19-46 have been cancelled.

All objections and rejections not set forth below have been withdrawn.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Art Unit: 2131

1 Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chou (US 2 Patent Number 6,167,136), and further in view of Wonfor et al. (US Patent Number 6,381,747) 3 hereinafter referred to as Wonfor 4 Regarding claim 1, Chou disclosed a digital signal recorder for recording a digital signal 5 on a recording medium (See Chou Abstract), comprising: first key information generation unit to 6 generate at least one item of first key information which is apparatus specific key information 7 (See Chou Col. 6 Lines 34-38 DK_A); second key information generation unit to generate at least 8 one item of second key information (See Chou Col. 6 Lines 39-43 and Col. 7 Paragraph 1; i); 9 key generation unit which receives said both of said first and second key information generated by said first key information generation unit and said second key information generation unit and 10 11 performs a prescribed arithmetic operation thereon to generate a key (See Chou Col. 6 Lines 44-12 58); an encryption circuit which receives said key and said digital signal and encrypts said digital 13 signal with said key (See Chou Col. 6 Lines 59-65), and outputs the resulting encrypted digital 14 signal in a case where said digital signal needs copy protection (See Chou Col. 6 Lines 59-65); and a recording circuit which records at least one of said at least one item of second key 15 information generated by said second key information generation unit, together with said 16 17 encrypted digital signal in a case where said digital signal needs copy protection (See Chou Col. 18 6 Line 66 – Col. 7 Line 5), but failed to disclose recording said digital signal without encryption 19 in a case where said digital signal needs no copy protection. 20 Wonfor teaches that not all data needs to be copy protected and teaches a system that 21 turns off copy protection when it is not needed (See Wonfor Col. 2 Line 66 - Col. 3 Line 7 and 22 Col. 12 Table 2).

Art Unit: 2131

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It would have been obvious to the ordinary person skilled in the art at the time of invention to employ the teachings of Wonfor in the copy protection system of Chou by only scrambling the data that needed copy protection and not scrambling the data that didn't need copy protection. This would have been obvious because the ordinary person would have been motivated to prevent unnecessary processing to copy protect data that did not need it. Regarding claim 2, Chou and Wonfer disclosed that said second key information generation unit generates said second key information by using a random number generator (See Chou Col. 7 Paragraph 1), and said digital signal has a packet format of a prescribed length (See Chou Col. 6 Lines 17-23). Regarding claim 3, Chou and Wonfer disclosed that said second key information generation unit generates said second key information by using a random number generator (See Chou Col. 7 Paragraph 1), the second key information generation unit has a function for updating said at least one item of said second key information at a prescribed time interval (See Chou Col. 5 Lines 34-39, Col. 6 Lines 59-61 and 7 Lines 2-5); and said recording circuit has a function for recording information capable of identifying timing when said second key information generation unit updates said key information (See Chou Col. 5 Lines 43-48). Regarding claim 4, Chou and Wonfer disclosed that said digital signal has a packet format of a prescribed length (See Chou Col. 5 Lines 34-39); and said recording circuit has a function for adding identifying information capable of identifying timing where said second key information generation unit updates said second key information, and where said identifying information is added to packets of said digital signal and recorded on said recording medium (See Chou Col. 5 Paragraph 4 and Col. 6 Paragraph 5 and Col. 7 Paragraph 1).

Art Unit: 2131

1 Regarding claim 5, Chou and Wonfer disclosed that said second key information 2 generation unit generates said second key information by using a random number generator (See Chou Col. 7 Paragraph 1), said encryption circuit has a function capable of selecting between a 3 4 first function for encrypting and outputting said digital signal, and a second function for 5 outputting said digital signal as is without encryption (See the rejection of claim 1 above); and 6 said recording circuit has a function for recording, in a prescribed area on said recording 7 medium, encryption flag information indicating whether or not said digital signal is encrypted, 8 and, when not encrypted, not recording said second key information (See Wonfor Col. 8 Lines 9 17-23 and Table 2). 10 Regarding claim 6, Chou and Wonfer disclosed that said digital signal has a packet 11 format of a prescribed length (See Chou Col. 5 Lines 34-39); and said recording circuit has a 12 function for adding encryption flag information indicating whether or not said digital signal is encrypted, to packets of said digital signal, and a function for recording on said recording 13 14 medium (See Wonfor Col. 8 Lines 17-23 and Table 2). 15 Claims 7-12, and 14-17, are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Chou and Wonfor, as applied to claim 1 above, and further in view of Kim 16 17 (US Patent Number 6,466,733). 18 Regarding claim 7, the combination of Chou and Wonfer disclosed a digital signal recorder in which a digital signal of a packet format of a prescribed length is input comprising: 19 first key information generation unit to generate at least one item of first key information which 20 21 is apparatus specific key information; second key information generation unit to generate at least 22 one item of second key information; key generation unit to receive both of said first and second

Art Unit: 2131

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Page 7

key information generated by said first key information generation unit and said second key information generation unit, and perform a prescribed arithmetic operation to generate a key; an encryption circuit which receives said key and said digital signal, encrypts said digital signal with said key and outputs the resulting encrypted digital signal in a case where said digital signal needs copy protection; and a recording circuit which records at least one of said at least on item of second key information generated by said second key information generation unit, together with said encrypted digital signal in a case where said digital signal needs copy protection, and records said digital signal without encryption in a case where said digital signal needs no copy protection (See rejection of claims 1-2 above), but failed to disclose dividing the signal into other prescribed lengths; a synchronization signal, recording information signal, auxiliary information signal, and first error correction code are added thereto to define a block format; one track is formed by a prescribed number of blocks thus made; a second error correction code is added in units of n tracks (where n is an integer 1 or greater); said second error correction code is also divided and said first error correction code is added thereto to constitute a block format; and said tracks are recorded on said recording medium.

Kim teaches a method for recording a digital transport stream by creating tracks from video packets and providing three error correction codes to each track (See Kim Figs. 2, 3, and 5 and Col. 6 Paragraphs 4-7 and Col. 7 Paragraphs 3-4).

It would have been obvious to the ordinary person skilled in the art at the time of invention to employ the teachings of Kim in the recorder of Chou and Wonfer by storing the encrypted packets in the ECC block format of Kim. This would have been obvious because the

Page 8

Application/Control Number: 09/913,595

Art Unit: 2131

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ordinary person skilled in the art would have been motivated to protect the stored programs
against errors.

Regarding claim 8, see the rejection of claim 1 above wherein it would have been obvious to store the frame identification number in an auxiliary storage area because the frame identification number is auxiliary data.

Regarding claim 9, see the rejection of claim 3 above.

Regarding claim 10, Chou, Wonfer, and Kim disclosed that timing information was included in the stored block data (see Kim Col. 5 Paragraph 6).

Regarding claim 11, Chou, Wonfer, and Kim disclosed that timing information was stored in an auxiliary section (See Kim Col. 6 Paragraph 4 and Col. 7 Paragraph 3).

Regarding claim 12, Chou, Wonfer, and Kim disclosed adding timing information to the blocks identifying the timing of the packets (See Kim Col. 2 Lines 54-57)

Regarding claim 13, Chou, Wonfer, and Kim disclosed that the frame identification number was updated every frame and there was at least one frame per track (See Chou Col. 5 Paragraph 4). Therefore, the frame identification number was updated for every track.

Regarding claim 14, see the rejection of claim 7 above.

Regarding claim 15-17, see the rejection of claims 5-6 above.

Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Chou, Wonfor, and Kim, as applied to claim 14 above, and further in view of Yuval et al. (US Patent Number 5,586,186) hereinafter referred to as Yuval.

Application/Control Number: 09/913,595 Page 9

Art Unit: 2131

The combination of Chou, Wonfor, and Kim disclosed encrypting certain data and not other data, (See the rejection of claim 1 above), but failed to disclose switching to determine whether or not to encrypt every n tracks.

Yuval teaches that for efficiency, only every nth track should be encrypted (See Yuval Col. 6 Lines 13-23).

It would have been obvious to the ordinary person skilled in the art at the time of invention to employ the teachings of Yuval in the copy protection system of Chou, Wonfor, and Kim by encrypting every nth track. This would have been obvious because the ordinary person skilled in the art would have been motivated to make the copy protection system more efficient in both the encryption and decryption.

11 Conclusion

12 Claims 1-18 have been rejected.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Art Unit: 2131

1	Any inquiry concerning this communication or earlier communications from the
2	examiner should be directed to Matthew T. Henning whose telephone number is (571) 272-3790.
3	The examiner can normally be reached on M-F 8-4.
4	If attempts to reach the examiner by telephone are unsuccessful, the examiner's
5	supervisor, Ayaz Sheikh can be reached on (571) 272-3795. The fax phone number for the
6	organization where this application or proceeding is assigned is 571-273-8300.
7	Information regarding the status of an application may be obtained from the Patent
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14	information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.
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Matthew Henning 22

Assistant Examiner 23

24 Art Unit 2131

25 5/23/2006

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